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HUNTERS' OPINIONS OF THE EARLY NORTHWEST DEER SEASON: A COMPARISON OF NORTHWEST AND NON-NORTHWEST HUNTERS

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Bureau of Research

ABSTRACT

This report compares the opinions of 1984 Wisconsin deer hunters about establishing an early deer season in northwestern Wisconsin. Two groups of hunters were studied, those who hunted in northwestern Wisconsin and those who hunted elsewhere in the state. The data were drawn primarily from a survey of these two groups. A survey questionnaire was sent to a random sample of 700 hunters who had purchased Wisconsin deer licenses in 1983; the response rate was 83%. The questionnaire was written and implemented by personnel of the University of Wisconsin-Madison and the Wisconsin Department of Natural Resources (DNR). In addition, two series of public meetings were held, the first to gather hunters' opinions about a possible early northwest deer season and the second to obtain hunters' votes on this proposal. Both the meetings and the survey were initiated by the DNR's Early Deer Season Committee, established in 1982. I incorporated the results of the meetings into my conclusions, which follow:

1. Deer hunters felt that the northwest deer herd had declined over the five years (1979-84) preceding the study. Hunters agreed with managers that an early season would increase their chances of seeing and bagging deer. Hunters did not agree with managers that the deer harvest in the northwest should be increased.
2. Northwest hunters consistently rated hunter satisfaction and hunting quality lower than did non-northwest hunters. These differences in reported satisfaction are related to northwest hunters' dissatisfaction with their perceived chances for a successful hunt and with the size of the northwest deer herd. An early season in the northwest would increase hunters' satisfaction with the hunt by increasing their chances of seeing and bagging deer. An early season would, however, conflict with northwest hunters' preferences for cold weather and snow cover. If it attracted many hunters from outside the northwest, an early season might also lower hunting quality and hunter satisfaction.
3. Despite the fact that hunter density is lower in the northwest than in other parts of the state, northwest hunters reported almost the same level of crowding as did non-northwest hunters. However, northwest deer hunters felt somewhat less crowded on opening day than did non-northwest hunters. The responses indicated that northwest hunters were generally more sensitive to crowding than were non-northwest hunters.
4. An early season would drastically increase hunting pressure in the northwest. One quarter of the non-northwest hunters surveyed said that they would hunt in the northwest on the opening day of an early season. The result could be an additional 125,000 hunters in the northwest on opening day. Hunting pressure in most northwest deer management units would double. Given the sensitivity of northwest hunters to hunter density, this influx of hunters would create crowding. Thus an early season would require that managers control the movement of hunters to reduce potential crowding.
5. Hunters who attended the public meetings rejected the idea of an early northwest deer season by a 2:1 margin. Hunters who attended meetings in the northwest indicated support for an early season, hunters who attended meetings on the border of the northwest were less in favor of an early season, and hunters who attended meetings outside the northwest opposed an early season. Support for the early season also varied by style of hunting: those who hunted with bows were more strongly opposed to the season than those who hunted with guns.

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INTRODUCTION

It is sometimes difficult to accommodate hunter preferences in the management of a game species. New rules may change the ways in which a species can be hunted, the numbers and types of game that can be harvested, and the length and dates of a season. These changes may challenge hunters' traditions, commitments, and preferences for existing seasons and rules. Moreover, hunters are not a homogeneous group. Some hunt with guns, others with bows. Hunters also differ in the type of hunt they seek. Some travel long distances to avoid crowding, while others tolerate the presence of many other hunters. Hunters may also disagree among themselves about the management of species. Finally, wildlife managers are not democratically elected, and hunters may question managers' rights to make management decisions.

Integrating Hunter Preferences with Deer Management

Wildlife managers for the Wisconsin Department of Natural Resources (DNR) learned about these differences and conflicts in the 1970s. In 1976 they proposed redistribution of deer hunters and hunting more evenly across the state, by shifting hunters from heavily hunted southern Wisconsin to lightly hunted northern Wisconsin. Managers felt this shift would increase the harvest of northern deer and improve hunting quality in the rest of the state by reducing crowding. This proposal divided the state into zones and restricted each hunter to a zone. In 50 public meetings held across the state in 1976, deer hunters overwhelmingly and angrily rejected these proposed changes (Heberlein and Laybourne 1978).

This effort to involve hunters through public meetings reflects a trend toward emphasizing citizen participation in resource management decisions, an emphasis that helps to legitimize natural resource policy decisions. Political scientists argue that decisions made by officials not directly accountable to the public lack legitimacy and are regarded as nondemocratic. In the words of one scholar, "many Americans find it difficult to reconcile bureaucratic policy-making with fundamental democratic constitutional principle" (West 1985:24). From this point of view, then, wildlife managers assured the legitimacy of their deer management decisions when they involved hunters in the decision.

Wisconsin wildlife managers have not been the only ones to confront the challenge of integrating deer management with hunter preferences. In the 1970s, the New York Department of Environmental Conservation (DEC) maintained that the killing of antlerless deer was necessary to maintain a balance

between the deer herd and the capacity of the range to support deer. Hunters disagreed, claiming that the killing of antlerless deer was responsible for an unacceptable decline in the size of the deer herd. The hunters' views prevailed, and the New York legislature stripped DEC of its authority to initiate antlerless deer seasons (Decker et al. 1983).

These experiences have taught managers to move cautiously, to anticipate hunters' concerns, and to draft management proposals that address these concerns. The 1982 management proposal for an early deer season in northwestern Wisconsin exemplifies this cautious approach. In that year wildlife managers met and established an Early Deer Season Committee (EDSC) to explore the possibility of an early deer season in the northwest.

Factors in Instituting an Early Deer Season in Northwestern Wisconsin

The biological argument for instituting an early deer season in northwestern Wisconsin is compelling. The existing season, with its single statewide opening day (the Saturday before Thanksgiving), has meant that fewer deer are taken in the northwest, where the peak of the rut has passed by opening day and deer are less active. Managers estimate that only 25-45% of the bucks in northwestern Wisconsin are harvested annually, compared with 70-80% of the bucks in southern and central Wisconsin. The low harvest rates in the northwest do not mean that bucks live to an old age in the northwoods. Older bucks deplete their fat reserves during the fall rut and may die when northern Wisconsin experiences a severe winter. Managers prefer to see hunters harvest older bucks. This harvest would not adversely affect the size of the deer herd because older bucks have a lower probability of surviving severe winters.

The deer harvest problem has been compounded during the 20th century by the gradual regrowth of forests in northern Wisconsin. By 1900, vast tracts of the northwoods had been logged, creating prime habitat for deer. Deer populations soared. But by the 1950s, forests had regrown and matured. This older growth timber was less desirable habitat and deer populations declined. More trees have also reduced visibility, making it more difficult for hunters to see deer.

Moreover, the rugged terrain and severe winters of the northwest make hunter movement more difficult. Northwest hunters (hunters who hunt in the northwest, but do not necessarily live there) are often unable to move as far or as quickly as hunters in other parts of the state. Also, hunter density in the northwest is lower than elsewhere in the state. Between 1979 and 1982, hunter pressure on opening day in the northwest was 9 hunters/mile², compared

to 22 hunters/mile² in the non-northwest management units (K. McCaffery, Wis. Dep. Nat. Resour., unpubl. data).

This combination of factors has meant that northwest hunters have been less likely to see and shoot deer. Consequently, the northern deer herd has been underexploited. Managers feel that the number of deer harvested could be increased without diminishing the size of the herd. An earlier season in the northwest would coincide with increased deer activity associated with the rut, and hunters would be more likely to see and to bag deer.

But an earlier season in the northwest would challenge hunters' strong commitments to the current opening day and might be opposed by bow hunters, who would lose hunting days. Moreover, an early season might increase the number of hunters in the northwest and cause crowding. Southern hunters (those hunters who hunt in the south, but do not necessarily live there) might hunt the opening day in the northwest and then return south to hunt in their traditional areas on the opening day of the regular season. Hunters might also have strong feelings about how an early season in the northwest would affect the quality of hunting statewide.

Managers needed an assessment of these and other concerns before formulating management proposals.

Early Northwest Deer Season Proposal (1982)

In 1982, the EDSC drafted a proposal to combine public meetings with a deer hunter survey. The meetings were intended to present information on an early northwest deer season and to gather hunters' reactions to this idea. At the meetings hunters would see a slide-tape presentation outlining managers' views of the current situation and explaining why an early season might be beneficial. Unlike the meetings of the 1970s, however, no specific proposals for an early season would be introduced. Rather, hunters would be invited to state their feelings about an early season and to offer suggestions. The comments would be recorded, compiled, and analyzed by managers. The hunters' comments would then provide the basis for draft proposals for an early season. In the winter of 1985-86, hunters would meet again to vote on the proposals.

The public participation format adopted by the EDSC had many advantages. The first series of meetings guaranteed that managers would not overlook hunters' concerns. The second series of meetings, in which hunters voted, provided managers with an opportunity to assess the acceptance of their proposals. Of course, public participation does not guarantee that the public will adopt a solution

advocated by management. The public may vote for a conservative management plan that underutilizes the resource but is consistent with hunting traditions. Such voting may not represent the opinions of all hunters, because opponents may be more likely than supporters to attend the meetings.

The 1984 Deer Hunter Survey gave managers additional information. The survey questionnaire addressed hunter success, hunting styles, perceptions of both crowding and the size of the deer herd, and overall hunter satisfaction. The questionnaire allowed for: (1) an assessment of the extent to which hunters thought that there was a problem that could be solved by an early season, (2) a test of the assumption that hunters in the north enjoyed a higher quality hunt than hunters in the rest of the state, and (3) a prediction of the numbers of southern hunters that would come to the northwest for an early season if they were not restricted from hunting there.

Organization of this Report

This report presents the results of both the 1984 Deer Hunter Survey and the public meetings and compares results from hunters who hunted deer in the northwest with results from hunters who hunted deer elsewhere in the state. The first three portions of the results section address the three central concerns of the EDSC: population biology of the deer herd, hunting quality, and crowding. The first portion presents hunters' perceptions of the changes in the population biology of the northwest deer herd and the reasons for these changes. The second portion explores the sociological issue of hunting quality in the northwest by comparing northwest and non-northwest hunters' perceptions of hunting quality and what they liked or disliked about where they hunted. The third portion examines levels of perceived crowding in the northwest and non-northwest and estimates the number of southern hunters who would hunt in the northwest if they were not restricted from hunting there. The fourth portion discusses the outcome of the public meeting votes on the early season proposal.

METHODS

Background

Wisconsin contains 31,043 miles² of deer range divided into 99 DNR deer management units, varying in size from 3-700 miles². In all of these management units, the gun deer season opens on the Saturday before Thanksgiving and lasts from 3-9 days, depending on the deer management unit. Hunters are allowed to bag one deer. Since 1986 most of the

state has had buck-only restrictions, with the antlerless deer harvest regulated by permits specific to units. The current deer license does not restrict a hunter to a specific deer management unit.

The 1984 Deer Hunter Survey

Sample Design

In 1983, 648,451 deer hunting licenses were sold. Copies of those licenses were returned to the DNR in early 1984. For the survey sample, 10,000 of those licenses were randomly selected, and the selected license holders were then sent the DNR's standard hunter pressure questionnaire (1984 Gun Deer Hunting Questionnaire, Form 2300-43), which asked which deer management units they hunted in and whether or not they bagged a deer. After three contacts with hunters, we achieved a response rate of 70%. The survey respondents were then divided into two groups: the 14% who hunted in management units in the northwest on opening day and the 86% who hunted in management units in other parts of the state on opening day. From each of these two groups, a sample of 350 hunters was randomly selected to receive the 1984 Deer Hunter Survey.

Questionnaire

The 31-page questionnaire was written by Thomas Heberlein and Jordan Petchenik, University of Wisconsin-Madison, Department of Rural Sociology, and by Kent Klepinger, DNR Bureau of Research (Append. A). A draft of this questionnaire was pretested on 100 respondents immediately following the 1984 deer season. The questionnaire was then revised and sent out in January 1985.

The results of this survey reflect hunters' experiences in 1984. The persons selected for the survey received four mailings: (1) an advance letter announcing the survey and describing its purpose, (2) the questionnaire with a cover letter, (3) a postcard reminder, and (4) an additional copy of the questionnaire. All of the contacts were made under the letterhead of the University of Wisconsin-Madison, with Thomas Heberlein identified as the sponsor. The mailing, data entry, and data analysis were done by the personnel of the Technical Services Section of the DNR's Bureau of Research. A total of 573 usable questionnaires were returned (292 from non-northwest hunters, 281 from northwest hunters), for an overall response rate of 83%.

The data from the questionnaires were

analyzed using interactive SAS (Statistical Analysis System). Responses were grouped by the area hunted on opening day (northwest or non-northwest). The data are presented here using frequency counts and cross-tabulations. Chi-square tests for significant differences between responses were applied and are presented for selected data sets.

Public Meetings

In the spring of 1985, 35 meetings about an early northwest deer season were held throughout the state. About 3,400 hunters attended the meetings, viewed the slide-tape presentation, and commented on deer hunting. Managers recorded 1,043 comments; in addition, managers received 450 letters from hunters concerning the proposed early season.

In the winter of 1985-86, 18 meetings were held, where managers presented four different proposals for an early northwest deer season (Append. B). A total of 4,448 hunters attended these meetings and voted on the alternative proposals. The meetings were located within the northwest, on or near the northwest boundary, and outside the northwest (Fig. 1).

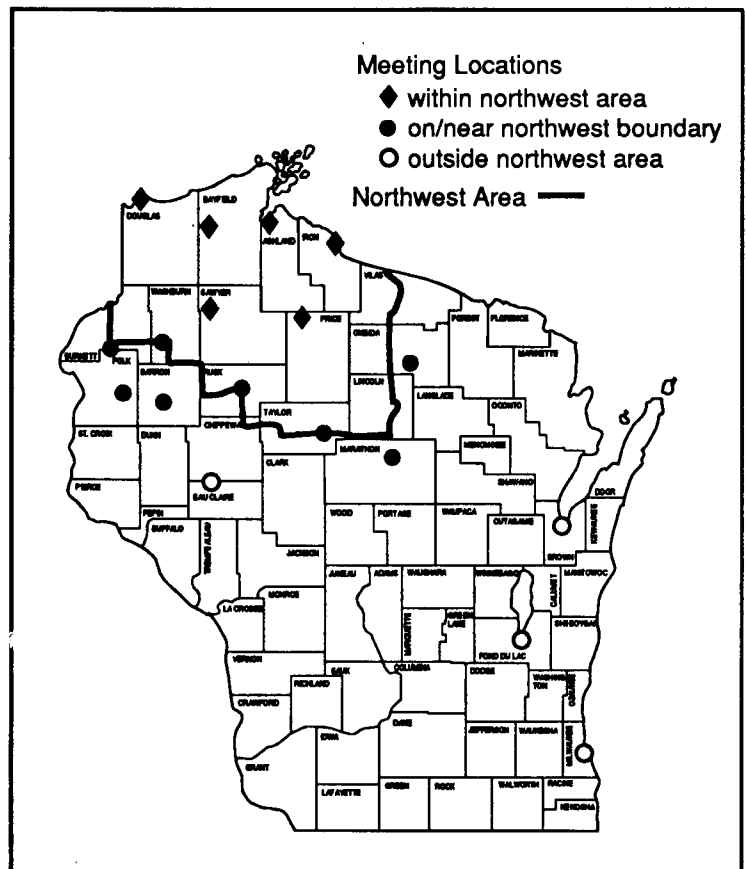


FIGURE 1. Locations of the 1985-86 public meetings.

RESULTS AND DISCUSSION

Hunters' Perceptions of the Northwest Deer Herd

This section addresses several issues: hunters' perceptions of the northwest deer herd and the reasons for the herd's change, hunters' support for an increased harvest in the northwest, and hunters' perceptions of what an early season in the northwest would mean for hunting success.

Changes in the Deer Herd

In the survey questionnaire, northwest hunters were asked how they felt the deer herd had changed between 1979 and 1984. Two thirds of the hunters felt that the herd had declined. Only 15% thought that it had increased, and the remaining 19% thought that it had stayed the same (Table 1). Hunters who attended the meetings stated that they were seeing fewer deer. One hunter, who had hunted the northwest since the 1940s, commented that he was seeing "fewer deer and more forest." Another hunter concurred, stating that he had "had good luck in the 1960s and early 1970s, but the herd has been going down."

Hunters were asked about the significance of severe winters, predators, and poachers in reducing the size of the deer herd. Hunters felt that severe

winters were a factor, but they viewed predation as a minor source of deer herd mortality. Both northwest and non-northwest hunters identified poaching as the leading cause of mortality for northwest deer (Table 2).

Hunters' comments on their questionnaires identified other beliefs about the causes of mortality in the deer herd. These included such factors as the exercise of Native American treaty rights, group hunting practices, and the number of antlerless deer permits issued. One respondent, for instance, spoke of "large numbers of bow hunters (50-60) driving one mile sections and shooting every deer that comes out and wounding many others." Another respondent believed that the exercise of treaty rights in his area was responsible. In his words: "The decline is caused by the early and long Indian season. The area I hunt is only a few miles outside the Lac Court Oreilles Indian Reservation. With all the new logging roads cut into my area I'm sure they were road hunting the area all fall. Last year is the first time in 20 years that I saw no other deer."

Support for Increasing the Harvest

Hunters did not agree with managers that the buck harvest rate in the northwest should be increased (Table 3). Indeed, given the declining deer herd, increasing the harvest seemed to them to be an unreasonable management proposal. One hunter at a meeting wondered, "If there were not the amount of deer, why increase the kill?" Another participant felt that an early season would "knock the heck out of everything. The bucks are not there to take. The population up north is down. We should not be taking more bucks—they are not there."

Deer hunters agreed with managers that an early season would increase their chances of seeing and killing a deer (Table 4). Fifty-eight percent of the hunters thought that they would see more deer, and 58% also thought that they would be more likely to bag a deer. Hunters did not think that they would be more likely to bag a trophy deer.

TABLE 1. Northwest hunters' perceptions of changes in the deer herd from 1979-85.

Statement	Northwest Hunters (%)
	Who Agreed With Statement
Over years 1979-85 the northwest deer herd has:	
Increased in numbers	15
Decreased in numbers	66
Remained the same	19
Total	100

TABLE 2. Factors affecting the northwest deer herd: the perceptions of northwest and non-northwest deer hunters in 1984.

Statement	Non-northwest Hunters Who Agreed (%)		Northwest Hunters Who Agreed (%)		Level of Significance Between Groups
	Probably	Definitely	Probably	Definitely	
Many deer are lost to severe weather.	48	17	34	15	0.01
Poachers take many deer.	53	19	44	26	0.01
Predators take many deer.	39	7	36	11	0.05

Hunter Satisfaction in the Northwest

Bagging a deer is an important part of a satisfying hunting trip. Studies of hunting satisfaction demonstrate that hunters who see, shoot, and bag deer are more satisfied than those who do not (Heberlein et al. 1982). There are other important parts to a satisfying hunting experience: being close to nature, practicing hunting skills, and interacting socially with other hunters. The EDSC felt that its proposal for an early season in the northwest would not only maximize the use of the deer herd but also improve hunter satisfaction by increasing the chance to bag a deer.

At the meetings, however, hunters expressed differing opinions on hunting quality and hunter satisfaction in the northwest. Some felt that they already enjoyed a good hunt. In the words of one hunter, "I've hunted the northwest for six years and I have a quality experience. I haven't gotten my deer every year but I have a quality experience. Last year I saw only two deer but had a great hunt." Other hunters were not so sure. As one skeptic put it, "The quality hunt stops when you reach Baraboo and start seeing deer on their cars but not on yours." In this section of the report, I compare the satisfaction level of northwest and non-northwest hunters, the aspects that these hunters liked and disliked about where they hunted, and the factors that led them to select a particular area for hunting.

Hunting Quality and Hunter Satisfaction

Northwest hunters reported lower levels of hunting quality and satisfaction than did non-northwest hunters. More than one half of the northwest hunters rated the quality of their opening day hunt as "low" or "very low," compared with slightly more than one third of the non-northwest hunters (Table 5). Similarly, northwest hunters also reported lower levels of hunting satisfaction on opening day than did non-northwest hunters. Forty-two percent of the northwest hunters reported their satisfaction with hunting on opening day as "poor" or "fair," compared with 27% of the non-northwest hunters (Table 6). Finally, northwest hunters reported a lower overall quality for the hunting season than did non-northwest hunters. Forty-two percent of the northwest hunters reported a "low" or "fairly low" season, compared with 26% of the non-northwest hunters (Table 7).

Sources of Dissatisfaction

These differences in reported hunter satisfaction and hunting quality are related to the size of the deer herd and chances for success. Northwest hunters were less satisfied than non-northwest hunters with the number of deer, the chances for success, and the number of trophy bucks seen where they hunted.

TABLE 3. Northwest hunters' perceptions in 1984 of the northwest deer herd and support for an increased harvest of bucks.

Statement	Northwest Hunters (%)	
	Probably Agreed	Definitely Agreed
The current buck harvest rate should be increased.	25	9
You see more deer than five years ago.	15	5

TABLE 4. Northwest hunters' perceptions of the impact of an early season on their chances to see and bag deer.

Statement	Northwest Hunter's Perceptions (%)	
	Probably	Definitely
An early season would:		
Increase your chances of seeing more deer	32	26
Increase your chances of bagging a deer	36	22
Increase your chances of bagging a trophy deer	29	16

TABLE 5. Hunter assessment of hunting quality on opening day in 1984: a comparison of northwest and non-northwest hunters.*

Opening Day Quality Rating	Hunters (%)	
	Non-northwest	Northwest
Very low	18	33
Fairly low	18	19
About average	38	30
Fairly high	17	10
Very high	10	8
Total	101	101

*All responses were significantly different between the two groups.

Two thirds of the northwest hunters stated that they "somewhat disliked" or "strongly disliked" the size of the deer herd in the northwest, compared with less than one third of the non-northwest hunters (Table 8). Northwest hunters were also significantly less satisfied than non-northwest hunters with the number of deer they saw. Sixty percent of the northwest hunters disliked the number of deer they saw, compared with 28% of the non-northwest deer

hunters. Northwest hunters were also less satisfied than non-northwest hunters with their chances for success, but the difference between levels of satisfaction for northwest and non-northwest hunters decreased for survey questions about their chances for success, their past successes, the number of shots taken, and the number of trophy bucks they saw. For example, 41% of the northwest hunters were dissatisfied with their chances for success, compared with 25% of the non-northwest hunters.

Non-northwest and northwest hunters differed little in their satisfaction with most habitat and locational factors (Table 9). But non-northwest hunters were significantly less satisfied than northwest hunters with the amount of posted land and with the number of hunters in the field. Two fifths of the non-northwest hunters reported that they "somewhat disliked" or "strongly disliked" the amount of posted land, compared with less than one third of northwest hunters (Table 9). Similarly, 48% of the non-northwest hunters reported that they disliked the number of hunters in the field, compared with 39% of the northwest hunters. The two groups differed only slightly in their satisfaction with habitat, snow cover, and temperatures where they hunted.

Factors Determining Choice of Hunting Location

Under the current rules, hunters can choose from a variety of locations for their hunt. In the survey, I examined the factors that affect hunters' choices of hunting areas and then compared the responses about these factors for northwest and non-northwest hunters. I grouped the factors into three categories: herd factors, habitat factors, and social factors (Table 10).

In choosing a hunting area, the factors of past success and the chance to see, shoot at, and bag deer (herd factors) were more important to non-northwest than northwest hunters. More than two thirds of the non-northwest hunters, for instance, emphasized the importance of the chance to see deer, compared with one half of the northwest hunters. However, the chance to see (and presumably bag) a trophy buck was a more important factor for northwest than non-northwest hunters.

Northwest and non-northwest hunters also differed in the emphasis they placed on habitat factors. For northwest hunters, the availability of public land was a more important factor than for non-northwest hunters; alternatively, access to private land was more important to non-northwest than northwest hunters as a factor in choosing a hunting area. Both groups cited "appealing habitat" and the "chance to see wildlife" as important factors in selecting a hunting location.

One major difference distinguished the two groups

TABLE 6. *Hunters' opening day satisfaction ratings: a comparison of northwest and non-northwest deer hunters in 1984.**

Overall Rating	Hunters (%)	
	Non-northwest	Northwest
Poor	16	27
Fair	11	15
Good	23	21
Very good	20	16
Excellent	18	11
Perfect	11	8
Total	99	98

*All responses were significantly different between the two groups.

TABLE 7. *Hunter assessment of overall season quality: a comparison of northwest and non-northwest hunters in 1984.**

Quality Rating	Hunters (%)	
	Non-northwest	Northwest
Very low	10	18
Fairly low	16	24
About average	41	34
Fairly high	23	16
Very high	10	8
Total	100	100

*All responses were significantly different between the two groups.

TABLE 8. *Hunter dissatisfaction with the size of the northwest deer herd and with their chances for success: a comparison of northwest and non-northwest hunters in 1984.**

Factor	Hunters (%) Who Somewhat or Strongly Dislike the Factor	
	Non-northwest	Northwest
Herd size	30	64
Number of deer seen	28	60
Chance for success	25	41
Past success rate	23	38
Number of shots taken	22	32
Number of trophy bucks seen	38	48

*All responses were significantly different between the two groups.

TABLE 9. *Hunter dissatisfaction with habitat and locational factors: a comparison of northwest and non-northwest hunters in 1984.*

Factor of Dissatisfaction	Hunters (%) Who Somewhat or Strongly Dislike the Factor		Level of Significance Between Groups
	Non-northwest	Northwest	
Habitat	14	20	N.S.
Average temperature	16	21	N.S.
Poor snow cover	28	32	N.S.
Amount of posted land	41	30	0.05
Amount of public land	19	16	N.S.
Number of hunters afield	48	39	0.05

TABLE 10. *Deer herd and habitat considerations affecting choice of area hunted: a comparison of northwest and non-northwest hunters in 1984.*

Factors	Hunters (%) Whose Decision Was Somewhat or Greatly Affected by the Factor		Level of Significance Between Groups
	Non-northwest	Northwest	
Herd factors			
Past success	55	46	0.01
Chance to see deer	69	50	0.01
Chance to see trophy buck	40	4	0.05
Chance to shoot at legal deer	61	47	0.01
Chance to bag a deer	68	55	0.01
Habitat factors			
Appealing habitat	71	74	N.S.
Available public hunting land	41	67	0.01
Likelihood of snow cover	39	69	0.01
Chance to see other wildlife	61	61	N.S.
Access to private land	63	48	0.01
Social factors			
Number of hunters afield	70	69	N.S.
Convenience	60	67	N.S.
Choice of hunting partners	68	69	N.S.
Tradition	61	74	0.01

in selecting a hunting area: snow cover. More than two thirds of the northwest hunters wanted snow cover, compared with two fifths of the non-northwest hunters. The issue of weather for hunting, which surfaced as a concern during the meetings, deserves closer scrutiny. The EDSC suggested at the meetings that hunters would enjoy warmer and better hunting weather with an earlier season. Hunters at the meetings, however, stated that they wanted colder weather and snow cover for tracking. One hunter commented, "I've hunted there for eleven years and there has been only one year of severe weather that hindered hunting. I've wished the season were a couple of weeks later so it was colder with more snow." Hunters also indicated that cold weather,

which freezes the surfaces of unimproved roads, makes access to the north country easier. They also feared that they might encounter rain with an early season. Finally, some hunters suggested that in warmer weather bagged deer would spoil and would need to be transported immediately to distant processing plants. Moreover, hunters did not think that an earlier season in the northwest would necessarily mean better weather (Table 11).

The two groups differed little in indicating that social factors determined where they hunted (Table 10). An equal percentage of both groups stated that they chose a site on the basis of convenience and the preferences of their hunting partners. Also, 69% of the northwest hunters and 70% of the non-northwest

TABLE 11. Hunters' perceptions in 1984 of weather changes with an early season.*

Statement	Hunter's Perceptions (%)	
	Non-northwest	Northwest
Weather conditions would be:		
More favorable	33	26
Less favorable	14	41
No different	29	24
Unsure	24	9
Total	100	100

*Chi square = 56.8; $P < 0.01$.

hunters mentioned the "number of hunters afield" as an important consideration in selecting a site. That is, they select their hunting site to avoid crowding and interference by other hunters. More northwest than non-northwest hunters mentioned tradition as an important factor in selecting a hunting location.

Hunter Movement into the Northwest

An early deer season in the northwest might cause an increase in the number of hunters there. Without restrictions on hunter movement, some hunters who usually hunt in the south might go to the northwest to hunt during the early season. This increase could cause northwest hunters to feel more crowded, which was a concern expressed at the meetings. One hunter feared that with an early season there would be a "tremendous influx of hunters going up to the area and the reason I go up to that area is totally defeated." Another hunter commented that he had "hunted up there since 1960. You don't see many deer but you also don't see many hunters. I don't see any strangers in the woods and I enjoy that."

Wildlife managers shared hunters' concerns about crowding. Any change in the opening of the season would mean that managers would have to control the movement of hunters. Thus far, however, managers have had no estimate of the movement that would result from an early season, the current levels of crowding in the northwest, or the sensitivity of northwest hunters to crowding. In this section, I discuss current levels of crowding, the sensitivity of northwest hunters to crowding, and the number of non-northwest hunters that might move into the northwest, given an early season.

Current Levels of Crowding

Studies of recreational carrying capacity distinguish between crowding and density. *Density* refers to the number of people within a given area. *Crowding* refers to a value judgement that there are too many

people within an area (Gramann 1982, Graefe et al. 1984). Whether or not we feel crowded within a setting depends, in part, on the number of people we encounter in that setting, but the sensation is also affected by our expectations and preferences for seeing others, the behavior of others, the type of activity we participate in, and the evidence of adverse effects of others on the setting (litter, for example) (Bultena et al. 1981, Vaske et al. 1982, Graefe et al. 1984). Bultena's study of hikers' perceptions of crowding found that when actual contacts exceeded the number of preferred contacts, hikers felt more crowded (Bultena et al. 1981).

In the questionnaire, hunters were asked to rate how crowded they felt on opening day in 1984, using a 9-point scale with values that ran from "not at all crowded" (number 1) to "extremely crowded" (number 9) (Append. A).

Responses to this scale were analyzed in several ways. In one approach, respondents were categorized as either crowded (those who circled numbers 3-9) or uncrowded (those who circled numbers 1 or 2). Results from this method show that 43% of the northwest hunters felt crowded on opening day, compared with 51% of the non-northwest hunters. These percentages are far less than corresponding results for high-density hunting situations, such as a goose firing line at the Grand River Marsh or pheasant hunters on opening day at the Bong Recreation Area (Shelby and Heberlein 1986) (Table 12).

In another approach the crowding scale was divided into five categories (Table 13). This approach provided a more precise comparison between northwest and non-northwest hunters and showed the extent to which hunters felt extremely crowded. More non-northwest hunters reported feeling extremely crowded on opening day than did northwest hunters, although the differences between these groups were not statistically significant (Table 13).

The survey questionnaire further examined northwest hunters' perceptions of crowding on opening day. Northwest hunters felt relatively uncrowded on opening day. Thirty-three percent of the northwest hunters agreed that "there were too many hunters"; 56% said that they "expected to see more hunters." Northwest hunters did not, however, want an increase in the number of hunters. Only 31% of the hunters agreed that the "number of hunters in the northwest should be increased" (Table 14).

Crowding and Hunting Interference

The type of contact between recreationists is an important determinant of the concept of crowding (Bultena et al. 1981). The presence of other hunters in the field can cause conflicts between hunters. Hunters may disagree over who shot a deer, over

TABLE 12. *Rating of perceived crowding on opening day for different hunting activities.**

Hunting Activity	Participants (%) Reporting the Experience as Crowded
Pheasant hunters (Bong Recreational Area)*	89
Goose hunters firing line (Grand River Marsh)*	86
Theresa Marsh goose hunt (1984)**	70
Central Management Zone goose hunt (1984)**	59
Mississippi Valley Population area goose hunt (1984)*	54
Non-northwest deer hunters (1984)^a	51
Sandhill high density hunt (1980)*	50
Opening day deer hunters (1977)*	46
Northwest deer hunters (1984)^a	43
Horicon Goose Permit Zone (1984)**	32
Sandhill low density hunt (1980)*	21
Goose hunters (managed hunt)*	17

*Shelby and Heberlein 1986.

**DNR Bureau of Research, unpublished data.

^aCurrent survey.

TABLE 13. *Hunters' perceptions of crowding on opening day in 1984: a comparison of northwest and non-northwest hunters using a 9-point scale.*

Scale Description	Combined Scale Rating	Hunters (%)	
		Non-northwest	Northwest
Not at all crowded	1-2	48	56
Slightly crowded	3-4	26	21
	5	5	5
Moderately crowded	6-7	11	11
Extremely crowded	8-9	9	5
Total		99	98

TABLE 14. *Northwest hunters' perceptions of hunting pressure on opening day in 1984.*

Statement Describing Opening Day	Hunters (%) Probably or Strongly Agreeing With Statements
There were too many hunters where I hunted.	33
There were enough hunters to move deer.	56
The number of hunters in the northwest should be increased.	31
I had expected to see more hunters than I actually saw.	45

who has the right to hunt in an area, and over the use of radios or other hunting practices. The 1984 Deer Hunter Survey did not include any questions on the incidence of these problems. But data from a 1983 DNR survey of deer hunters provided some indication

of the level of hunting interference in the northwest and other areas in the state (E. Nelson, Wis. Dep. Nat. Resour., unpubl. data). Non-northwest hunters reported more incidents of hunting interference than did northwest hunters. Twenty-eight percent of the

non-northwest hunters, for instance, agreed that "there was too much competition from other hunters," compared with 15% of the northwest hunters (Table 15).

Sensitivity to Hunter Density

Hunter density in the northwest is lower than in other parts of the state, yet northwest hunters felt, on the whole, almost as crowded as non-northwest hunters. This finding suggests that northwest hunters were more sensitive to hunter density than were non-northwest hunters.

Respondents to the questionnaire were asked about their preferences for seeing other hunters. Twice as many northwest hunters as non-northwest hunters said they preferred not to see other hunters (Table 16). Therefore, northwest hunters are more likely to be sensitive to the increased hunting pressure that might result from an early season.

Hunter Movement into the Northwest, Given an Early Season

Estimating the movement of non-northwest hunters into the northwest is difficult. Although attempts to predict behavior are not always successful, the most reliable questions for forecasting behavior are specific ones that include the nature, time, and location of the behavior (Ajzen and Fishbein 1980). In part, the shift of hunters to the northwest would depend on how they perceived their chances for success, the habitat in which they would hunt, and overall hunting quality. Most non-northwest deer hunters felt that the northwest offered neither a better chance to bag a deer nor a higher quality hunt. Only one fourth of the non-northwest hunters thought that their chances of bagging a deer would be higher in the northwest (Table 17). One third of the non-northwest hunters thought that their chances of seeing a deer would be

greater. However, non-northwest hunters felt that their chances of seeing a trophy deer would be greater. Yet only 38% agreed that hunting quality was better in the northwest than where they currently hunted. These answers suggested that a small but significant number of non-northwest deer hunters thought that they would be more likely to bag a deer in the northwest or that the northwest offered a superior hunt. One quarter of the non-northwest hunters indicated that they would hunt in the northwest if the season there were opened early. The same percentage of non-northwest hunters said they would hunt in the northwest on opening day, given an early season (Table 18).

These responses indicate that hunting pressure would increase in the northwest if an early season were held, and if the movement of hunters were not controlled. If just 10% of the non-northwest hunters hunted in the northwest during an early season, the result would be an additional 50,000 hunters. If all 25% of the non-northwest hunters who said they would hunt in the northwest actually did so, the result would be an additional 125,000 hunters. Table 19 shows the changes in hunter density that would result from the addition of different numbers of hunters. I assume that hunters would be distributed proportionally across the northwest. That is, if a unit currently has 5% of the hunters who hunt in the northwest, then that unit would receive 5% of any new hunters (or about 2,500 hunters, if 50,000 new hunters were added in the northwest). These estimates suggest that hunting pressure would double in many northwestern units if even 17% of the non-northwest hunters went to the northwest to hunt. The addition of 125,000 new hunters would mean that hunting pressure would more than double in most northwest deer management units.

TABLE 15. *Hunters' perceptions of hunting interference in 1983: a comparison of northwest and non-northwest hunters.**

Statement	Hunters (%) Who Agreed With Statement		Level of Significance Between Groups
	Non-northwest	Northwest	
There were too many hunters for me to enjoy being in the field.	28	21	0.01
Other hunters occasionally kept me from hunting where I wanted to.	35	26	0.01
Where I hunted there was a chance of two or more hunters claiming the same deer.	25	15	0.01
There was too much competition from other hunters where I hunted.	28	21	0.01

*All responses were significantly different between the two groups.

TABLE 16. *Preferences of northwest and non-northwest hunters in 1984 for seeing other hunters.*

Number Preferred	Hunters (%)	
	Non-northwest	Northwest
None	15	32
1-2	19	13
3-5	31	22
6-10	21	18
11-15	7	8
16-20	1	4
21-30	3	1
>30	1	2
Total	98	100

TABLE 17. *Non-northwest hunters perceptions in 1984 of northwest deer hunting.**

Statement	Hunters (%)	
	Probably Agreed	Definitely Agreed
How the northwest differs from my current hunting area:		
The deer population is much larger.	26	3
Chances of seeing any legal deer are greater.	27	6
Chances of seeing a trophy deer are greater.	47	17
Chances of bagging a deer are greater.	21	4
Chances of bagging a trophy deer are greater.	49	21
Would see more wildlife	48	8
More unposted land	52	17
Better quality hunt	31	7

*Responses significantly different at 0.01 level.

TABLE 18. *Non-northwest deer hunters' responses in 1984 to an early northwest deer season.*

Statement	Hunters (%)	
	Probably Agreed	Definitely Agreed
If the gun deer season opened one week early:		
Would go to the northwest to hunt	18	7
Would hunt the northwest opening day	17	8

TABLE 19. *Hypothetical changes in northwest hunting pressure as the result of an early northwest deer season.*

Management Unit	Hunters/Mile ²			
	Current	Increase (%)		
		10	17	25
1	7	11	13	16
2	11	17	21	26
3	6	9	12	14
4	5	8	10	12
5	11	17	21	26
6	6	9	12	14
7	4	6	8	9
8	11	17	21	26
9	13	20	25	31
10	13	20	25	31
11	13	20	25	31
12	12	19	23	28
13	8	12	15	19
14	6	9	12	14
18	10	15	19	24
19	10	15	19	24
20	10	15	19	24
24	9	14	17	21
25	9	14	17	21
26	14	22	27	33
28	7	11	13	16
29a	4	6	8	9
29b	2	3	4	5
30	5	8	10	12
31	17	26	33	40
32	12	19	23	28
34	15	23	29	35

Possible Consequences of Doubled Hunting Pressure

Northwest hunters were asked what they thought would happen if hunting pressure in their area doubled. Fifty-four percent thought that they would see more hunters; 63% anticipated feeling more crowded. Hunters did not feel that an increase in the number of hunters would improve either hunting quality or their chances to bag deer (Table 20).

Hunters' answers to these questions should be treated cautiously. There is no verifiable connection between perceived crowding and recreational satisfaction. A recent review of 53 studies identified only three in which a statistically significant relationship was found between crowding and satisfaction (Graefe et al. 1984). Two of these studies focused on the relationship between perceived crowding and deer hunting satisfaction (Heberlein and Laybourne 1978, Heberlein et al. 1982). In

TABLE 20. *Northwest hunters' perceptions in 1984 of the consequences of doubling the number of hunters in the area they hunt.*

Consequence	Hunters' Perceptions (%)
Would see more hunters	54
Would feel more crowded	63
Would see more deer	31
Would get more shots	18
Would increase chance to bag a deer	27
Would see fewer deer	27
Would decrease chance to bag a deer	38
Would lower quality of the hunt	61
Would increase the quality of the hunt	14

both studies, a positive relationship was found between crowding and satisfaction. These studies reported that seeing, shooting, and bagging deer had the strongest effects on hunter satisfaction. The presence of additional hunters in the field actually enhanced hunting quality. According to the authors, "the presence of hunters outside of one's party is often considered an asset because they move deer and increase the chances of bagging for everyone" (Heberlein and Laybourne 1978).

Public Meetings

Hunters' Reactions to the Early Season Proposal

At the informational meetings in spring 1985, hunters stated that there were too few deer in the northwest and that they feared an increase in the buck harvest would damage the deer herd. Some hunters believed that an early season would reduce the number of trophy bucks and result in an overharvest of the herd (Table 21).

The meetings also elicited concerns about the impact of the early season on crowding and hunting quality. Of greatest concern was crowding. Older hunters who attended the meetings recalled how crowded they felt during an early season held during 1959. Other hunters stated that an early season would reduce the quality of their hunt, presumably as a result of increased numbers of hunters. Finally, hunters attending the meetings stated that an early season would cause vacation problems. The current season coincides with Thanksgiving, and many hunters combine their Thanksgiving vacation with deer hunting. An early season would deprive them of the opportunity to use this vacation time for hunting.

There was also concern that an early season would have an adverse effect on bow hunters and other hunters. With an early season, bow hunters would likely lose at least three days of hunting, at a time

when deer are most active and when the chances for a successful hunt are the greatest. The Wisconsin Bow Hunters Association expressed this view and encouraged its members to speak out against the proposed early season.

Not all of the comments collected at the meetings were critical of the early deer season. Some hunters agreed that the weather would be better or that the deer would be more active. A minority of the participants agreed that the deer were underharvested. Nevertheless, most participants who attended the meetings questioned the wisdom of instituting an early season and increasing the deer harvest (Table 21).

Hunters' Votes on Early Deer Season Alternatives

Given these concerns, the EDSC drafted four different proposals for an early season: (1) a 16-day season starting the Saturday before the current season and running through the current season; (2) a 3-day early season during the Saturday, Sunday, and Monday before, and in addition to, the current season; (3) an open season starting on 15 November of each year and running through the end of the current season; and (4) a season starting on the Saturday nearest 16 November and running through the end of the current season (Append. B). To address hunters' concerns about increased crowding, each of the proposals limited the movement of hunters. Hunters who had hunted before Thanksgiving week in the northwest could not then hunt the opening day of the regular deer season outside the northwest. The ballots that the hunters completed also contained questions about the types of weapons they used, their memberships in conservation organizations, and their residences.

The results of hunters' votes on the alternatives and the current system are presented in Table 22. Overall, hunters rejected the idea of an early season by nearly a 2:1 margin. Thirty-eight percent endorsed the notion of some type of early deer season, while 61% wanted the season kept as it was. Of the early season proposals, two received the most support: the one advocating a 16-day season and the one suggesting a 3-day season on the weekend before the regular opening (Table 22). Bow hunters were less supportive of the early season proposal than were gun- or gun-and-bow hunters (Table 23).

Hunters who attended meetings within the northwest indicated support for an early season. Hunters who attended meetings on the border of the northwest were less in favor of the early season. The strongest opposition to the early season came from hunters who attended meetings outside the northwest (Table 24).

TABLE 21. *Issues identified at the 1984 public meetings and in letters.*

Issue	No. Concerns Expressed
Herd size and season impact	
Currently too few deer	202
Season will reduce number of trophy bucks	80
Season will cause over harvest	46
Harvesting older bucks will ruin game pool	28
Rut hunting too hard on buck population	28
Crowding and hunting quality	
Season will cause crowding	177
Season will reduce quality	68
Season will interfere with Thanksgiving vacation	119
Early season weather	
Need snow for hunting	152
Need frozen ground for access	50
Meat will spoil earlier in season	47
Rain will be a problem	11
Interference with other hunting	
It will hurt bow hunting	120
It will hurt other hunting	41
Statements supportive of early season	
Deer are more active	61
Weather is better	56
Deer are currently underharvested	29
There are too few hunters	29

TABLE 22. *Hunters' votes in 1984 on early deer season alternatives.*

Alternative	Hunters (%) Supporting Alternatives
16-day season starting the Saturday before the current season	17
3-day early season running Saturday, Sunday, and Monday before current season	15
Open season on 15 Nov every year and running through end of current season	3
Open on Saturday nearest 16 Nov and running through end of current season	3
Continue current 9-day season with no changes	61

TABLE 23. *Support in 1984 for the early deer season by type of weapon used.*

Weapon Used	Hunters (%)	
	Supported Early Season	Opposed Early Season
Gun	46	54
Bow	18	82
Gun and Bow	33	67

TABLE 24. *Support in 1984 for the early deer season by proximity to proposed zone.*

Location of Meeting	Hunters (%)	
	Supported Early Season	Opposed Early Season
Within northwest	55	45
On or near northwest boundary	34	66
Outside northwest	28	72

SUMMARY AND CONCLUSIONS

This report presents the results of the 1984 Deer Hunter Survey and two series of public meetings designed both to present information to and gather information from Wisconsin deer hunters. The purpose of both the survey and the meetings was to assess the perceptions of northwest and non-northwest hunters about the size of the northwest deer herd, hunting quality, and crowding. Additional purposes of the public meetings were first to obtain hunters' opinions about a possible early northwest deer season and second to obtain hunters' votes on this proposal.

Most of the data in this report were drawn from a mailed survey sent to 700 Wisconsin deer hunters. One half of these hunters hunted in northwestern Wisconsin; the other half hunted in other parts of the state. After four contacts, a response rate of 83% was achieved.

The following conclusions were drawn from the results of the survey questionnaire and the public meetings:

1. Deer hunters felt that the northwest deer herd had declined over the five years preceding the study. The hunters who responded to the questionnaire attributed the decline in deer numbers largely to poaching. Hunters did not agree with managers that the deer harvest in the northwest should be increased. Managers felt that an early season in the northwest would allow hunters to bag deer that might otherwise die during the winter. Managers did not believe that an early season would affect the size of the deer herd. Hunters and managers agreed on one critical point: an early season would increase hunters' chances of seeing and bagging a deer.
2. Northwest hunters consistently returned lower ratings of hunter satisfaction and hunting quality than did non-northwest hunters. These differences in reported satisfaction are related to northwest hunters' dissatisfaction with the number of northwest deer and to their perceived chances for a successful hunt. An early season in the northwest would increase hunters' chances of seeing and bagging deer and thus would increase their satisfaction with the hunt. But an early season would conflict with northwest hunters' preferences for cold weather and snow cover. An early season might also lower hunting quality and satisfaction, if it attracted many hunters from outside the northwest.
3. Despite the fact that hunter density is lower in the northwest than in other parts of the state, northwest hunters reported almost the same level of crowding as did non-northwest hunters. However, northwest hunters felt somewhat less crowded on opening day than did non-northwest hunters. The responses indicated that northwest hunters were more sensitive to crowding than were non-northwest hunters.
4. An early season would drastically increase hunting pressure in the northwest. One quarter of the non-northwest hunters surveyed said that they would hunt in the northwest on opening day of an early season. This could mean the addition of 125,000 hunters in the northwest. Hunting pressure in most deer management units would double. Given the sensitivity of northwest hunters to hunter density, this influx of hunters would create crowding. Thus, an early season would require control of hunters' movements to reduce potential crowding.
5. Overall, the hunters who attended the public meetings rejected the idea of an early season by a 2:1 margin. Hunters who attended meetings within the northwest indicated support for an early season, hunters who attended meetings on the border of the northwest were less in favor of the early season, and hunters who attended meetings outside the northwest opposed the early season. Support for the early season also varied by style of hunting: those who hunted with bows were more strongly opposed to the season than those who hunted with guns.

APPENDIXES

APPENDIX A. The 1984 Deer Hunter Survey.

IT IS IMPORTANT THAT THIS QUESTIONNAIRE BE COMPLETED BY THE PERSON TO WHOM IT WAS ADDRESSED. PLEASE TRY TO ANSWER WHAT YOU BELIEVE TO BE TRUE FOR YOU. THE BEST ANSWER IS THE ONE WHICH MOST CLOSELY REFLECTS YOUR OWN FEELINGS AND BELIEFS, OR WHAT YOU ACTUALLY DID.

This study is being conducted by the University of Wisconsin in cooperation with the Wisconsin Department of Natural Resources.

Section 1: Current Hunting Practices

People like to hunt deer in many different ways. These questions are about your style of hunting and how you personally go out and hunt whitetailed deer with a gun.

1. When did you first go gun deer hunting in Wisconsin?

(CHOOSE ONE)

<input type="checkbox"/> 1984 was the first year	<input type="checkbox"/> 1961-1965
<input type="checkbox"/> 1981-83	<input type="checkbox"/> 1951-1960
<input type="checkbox"/> 1976-1980	<input type="checkbox"/> 1941-1950
<input type="checkbox"/> 1971-1975	<input type="checkbox"/> 1930-1940
<input type="checkbox"/> 1966-1970	<input type="checkbox"/> Before 1930

2. How regularly have you gun deer hunted in Wisconsin?

(CHOOSE ONE)

☐ I've gone deer hunting every year since I started.

☐ I've gone deer hunting most years since I started.

☐ I've gone deer hunting about half of the years since I started.

☐ I've gone deer hunting very seldom since I started.

☐ Last year was the first year I hunted deer in Wisconsin.

3. Has the amount of time you spend deer hunting changed over the years since you first started?

(CHOOSE ONE)

☐ Yes, I spend more time deer hunting now.

☐ Yes, I spend less time deer hunting now.

☐ No, I spend the same amount of time deer hunting now.

4. How many hunters are in the parties that you usually hunt deer with?

(CHOOSE ONE)

☐ I usually hunt alone.

☐ 1-2 other hunters.

☐ 3-4 other hunters.

☐ 5-6 other hunters.

☐ 7-8 other hunters.

☐ 9-10 other hunters.

☐ More than 10 other hunters.

5. Which management units did you hunt in during the 1984 season? (Refer to map on front page and LIST ALL THAT APPLY.)

(LIST ALL THAT APPLY)

unit ☐

unit ☐

unit ☐

6. How many antlered bucks have you personally tagged in the last five seasons you hunted deer with a gun in Wisconsin?

(CHOOSE ONE)

☐ I have tagged a buck every year.

☐ I have tagged 4 bucks in my last five seasons.

☐ I have tagged 3 bucks in my last five seasons.

☐ I have tagged 2 bucks in my last five seasons.

☐ I have tagged 1 buck in my last five seasons.

☐ I have not tagged any bucks during my last five seasons.

☐ I have been hunting less than five years.

7. How many antlerless deer have you personally tagged in the last five seasons you hunted deer with a gun in Wisconsin?

(CHOOSE ONE)

☐ I have tagged an antlerless deer every year.

☐ I have tagged 4 antlerless deer in the last five seasons.

☐ I have tagged 3 antlerless deer in the last five seasons.

☐ I have tagged 2 antlerless deer in the last five seasons.

☐ I have tagged 1 antlerless deer in the last five seasons.

☐ I have not tagged any antlerless deer during the last five seasons.

☐ I have been hunting less than five years.

8. During your most recent deer season in Wisconsin, what types of hunting trips did you take?

(CHOOSE ALL THAT APPLY)

☐ I hunted on foot from my home.

☐ I drove a short distance and returned home the same day.

☐ I was away from home one night.

☐ I was away from home two to three nights.

☐ I was away from home four to five nights.

☐ I was away from home more than five nights.

☐ Other (please describe) _____

9. What type of hunting trip is the most important way of hunting deer for you?

(CHOOSE ONE)

☐ Hunting on foot from home.

☐ Driving a short distance and returning home the same day.

☐ Being away from home one night.

☐ Being away from home two to three nights.

☐ Being away from home four to five nights.

☐ Being away from home more than five nights.

☐ Other (please describe) _____

10. What type of hunting trip do you most prefer for hunting deer?

(CHOOSE ONE)

☐ Hunting from a cabin

☐ Camping with tents, a trailer, or motor home

☐ Staying at a motel

☐ Staying at a hunting partner's home

☐ Hunting on foot from home

☐ Driving a short distance and returning home the same day

☐ Other (please describe) _____

11. Did you hunt opening day in 1984?

☐ Yes

☐ No -- If NO: GO TO QUESTION 23 PLEASE.

12. Which management unit did you hunt in on opening day of the 1984 season? (Refer to map on front page)

I hunted in management unit _____ on opening day.

13. About how far did you have to drive one-way from your residence to reach your opening day hunting location?

_____ miles one-way.

14. About how many hours did it take to reach your opening day hunting location?

_____ hours one-way

15. How many people usually travel in the same vehicle to your opening day hunting location?

Myself and _____ others.

16. What type of vehicle do you usually travel in to your opening day hunting location?

(CHOOSE ONE)

- ☐ Full-sized automobile
☐ Middle-sized automobile
☐ Compact or small automobile
☐ Small truck (Chevy Luv, Toyota, etc.)
☐ Recreational vehicle, larger truck, van

17. Where did you stay on opening day when you went deer hunting in 1984?

(CHOOSE ONE)

- ☐ My own home
☐ A hunting partner's home
☐ Motel
☐ Cabin used for hunting trips
☐ Tents, a trailer, or a motor home
☐ Other _____

18. Who did you hunt with on opening day?

(CHECK ALL THAT APPLY)

- ☐ I hunted alone
☐ Friends I usually go hunting with on opening day
☐ Other friends
☐ Family members
☐ Strangers
☐ Business acquaintances
☐ Other _____

19. On opening day in 1984, what type of land did you hunt on?

(CHECK ALL THAT APPLY)

- ☐ Public land
☐ My own land or land owned by my family
☐ Private land hunted with permission
☐ Private land hunted without permission
☐ I don't know

20. How did you hunt deer on opening day in 1984?

- ☐ Walking slowly and stopping occasionally to look around
☐ From a tree stand
☐ A deer drive with partners
☐ Road hunted
☐ Walked along the roadside
☐ Other _____

21. How long did you hunt on opening day in 1984?

(CHOOSE ONE)

- ☐ I did not hunt opening day.
☐ I hunted less than one hour.
☐ I hunted 1-2 hours.
☐ I hunted 3-4 hours.
☐ I hunted 5-6 hours.
☐ I hunted 7-8 hours.
☐ I hunted 9-10 hours.
☐ I hunted more than 10 hours.

22. Briefly describe your opening day hunt in 1984. What did you do? Did anything unusual happen? What was the best thing that happened and what was the worst?

23. Did you apply for a Hunter's Choice Permit last season?

- ☐ No
☐ Yes -- IF YES: Did you obtain one?
☐ No
☐ Yes

24. Did any members of your hunting party obtain a Hunter's Choice Permit last season?

- ☐ I hunted alone
☐ Yes
☐ No

25. In addition to hunting deer with a gun, do you also hunt deer with a bow during the bow deer season?

- ☐ Yes
☐ No

26. For some people, deer hunting may be one of the most important things in their lives. To others, it may be just one of a number of interests they have; something which they enjoy but are not strongly committed to. If you could not go deer hunting, would you

(CHOOSE ONE)

- ☐ Not miss it at all
☐ Miss it slightly
☐ Miss it more than most of your other activities
☐ Miss it more than all of your other activities

27. Considering all the activities you could potentially do, how many substitutes do you have for deer hunting? In other words, if you couldn't go deer hunting, how many different activities are there that you would enjoy doing just as much?

(CHOOSE ONE)

- ☐ I have many substitutes for deer hunting.
☐ I have some substitutes for deer hunting.
☐ I have only a few substitutes for deer hunting.
☐ I have no substitutes for deer hunting.

The deer camp is a feature of deer hunting in Wisconsin. Hunting from a deer camp usually means being away from home and being with a group of other hunters. Sometimes a home can be a deer camp if other hunters come and stay at a private residence.

28. Did you hunt from a deer camp in 1984?

- ☐ No -- GO TO QUESTION 35 PLEASE
☐ Yes -- IF YES: What kind of camp was it?

(CHECK ALL THAT APPLY)

- ☐ Someone's home (including yours)
☐ A motel room or rented cabin
☐ Tents, a trailer, or a motor home
☐ Other _____

29. Even though there may be no original members of the deer camp who go hunting, to the best of your knowledge, when did this group which you hunt with originally form?

(CHOOSE ONE)

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> 1984 was the first year | <input type="checkbox"/> 1951-1960 |
| <input type="checkbox"/> 1981-1983 | <input type="checkbox"/> 1941-1950 |
| <input type="checkbox"/> 1976-1980 | <input type="checkbox"/> 1930-1940 |
| <input type="checkbox"/> 1971-1975 | <input type="checkbox"/> Before 1930 |
| <input type="checkbox"/> 1966-1970 | <input type="checkbox"/> I don't know |
| <input type="checkbox"/> 1961-1965 | |

30. Do any of the original members still come to the deer camp?

- ☐ Yes
☐ No

31. When did this group start hunting out of the deer camp location you hunted from last season?

(CHOOSE ONE)

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> 1984 was the first year | <input type="checkbox"/> 1951-1960 |
| <input type="checkbox"/> 1981-1983 | <input type="checkbox"/> 1941-1950 |
| <input type="checkbox"/> 1976-1980 | <input type="checkbox"/> 1930-1940 |
| <input type="checkbox"/> 1971-1975 | <input type="checkbox"/> Before 1930 |
| <input type="checkbox"/> 1966-1970 | <input type="checkbox"/> I don't know |
| <input type="checkbox"/> 1961-1965 | |

The next few questions are about experiences you may have had during your 1984 deer hunt in Wisconsin.

32. How many days did you hunt during that season?

(CHOOSE ONE)

- ☐ I hunted one day
☐ 2-3 days
☐ 4-5 days
☐ 6-7 days
☐ 8-9 days

33. Did you bag a deer during your 1984 deer hunting season?

(CHOOSE ONE)

- ☐ No, I did not bag a deer.
☐ Yes, I bagged a fawn.
☐ Yes, I bagged an adult doe.
☐ Yes, I bagged a spike buck.
☐ Yes, I bagged a forked buck with fewer than 8 points.
☐ Yes, I bagged a forked buck 8 points or greater.

34. Did you hit a deer you did not recover?

- ☐ No
☐ Yes -- IF YES: Was it recovered by another hunter?
☐ Yes
☐ No
☐ I do not know if another hunter recovered the deer I shot.

Section II:

Satisfaction with Your Deer Hunts

We are interested in finding out what you like and dislike about your deer hunts and what the best and worst aspects are in the area you hunt.

1. Here are some things which may explain why you hunt deer in your chosen area. Next to each item, indicate whether or not it affects your decision to hunt in your chosen area.

- 1 = Does not affect my decision at all
 2 = Affects my decision slightly
 3 = Affects my decision some
 4 = Greatly affects my decision

(CIRCLE ONE NUMBER IN EACH ROW)

Not at all Slightly Some Greatly

Available accommodations	1	2	3	4
Convenience	1	2	3	4
Tradition	1	2	3	4
To be with friends and/or family	1	2	3	4
Access to private land	1	2	3	4
Choice of hunting partners	1	2	3	4
Past success	1	2	3	4
Always see deer	1	2	3	4
Opportunity to see trophy buck	1	2	3	4
Opportunity to see other wildlife	1	2	3	4
Usually get a shot at a legal deer	1	2	3	4
Chance of bagging a deer	1	2	3	4
Number of hunters in the field	1	2	3	4
Appealing habitat	1	2	3	4
Available public hunting land	1	2	3	4
Likelihood of snow cover	1	2	3	4
Whether I could afford it	1	2	3	4
Other	1	2	3	4

2. Now we're interested in finding out what you enjoy most about where you now hunt deer on opening day. From the following list, choose the three items which you enjoy most, second most, and third most by placing letters in the blanks below.

(PLEASE CHOOSE THREE)

- A. available accommodations
 B. convenience
 C. tradition
 D. habitat
 E. number of hunters in the field
 F. always see deer
 G. opportunity
 H. chance of bagging a deer
 I. access to private land
 J. snow cover for tracking
 K. being with friends and/or family
 L. available public hunting land
 M. seeing other wildlife
 N. chance of getting a shot at a legal deer
 O. past success
 P. other

ONE LETTER PER BLANK, PLEASE

____ ENJOY MOST

____ ENJOY SECOND MOST

____ ENJOY THIRD MOST

3. We are also interested in finding out what you dislike about deer hunting in your chosen area. Indicate how strongly you dislike each condition.

- 1 = Makes No Difference
 2 = Slightly Dislike
 3 = Somewhat Dislike
 4 = Strongly Dislike

(CIRCLE ONE NUMBER IN EACH ROW)

No Difference Slightly Somewhat Strongly

Number of hunters in the field	1	2	3	4
Far from home	1	2	3	4
Habitat	1	2	3	4
Present size of deer herd	1	2	3	4
Average temperature	1	2	3	4
Poor snow cover for tracking	1	2	3	4
Number of deer I see	1	2	3	4
Chance for success	1	2	3	4
Number of shots I take at deer	1	2	3	4
Number of trophy bucks I see	1	2	3	4
Past success rate	1	2	3	4
Amount of posted land	1	2	3	4
Amount of public hunting land	1	2	3	4
Lack of accommodations	1	2	3	4
Behavior of other party members	1	2	3	4
Amount of other wildlife I see	1	2	3	4
Other	1	2	3	4

4. Did you change your hunting location in 1984 from previous years?

- ☐ No
☐ Yes -- IF YES: Why did you change?
 Rate the following statements as reasons why you changed.

- 1 = Not Important
 2 = Slightly Important
 3 = Somewhat Important
 4 = Very Important

(CIRCLE ONE NUMBER IN EACH ROW)

Not Important Slightly Somewhat Very

To be closer to home	1	2	3	4
To hunt in different habitat	1	2	3	4
To see more wildlife	1	2	3	4
Too much wet windy weather	1	2	3	4
Poor snow cover	1	2	3	4
Poor success rate	1	2	3	4
Hunting partners wanted to change	1	2	3	4
Just to hunt in a new area	1	2	3	4
Not enough hunters to keep the deer moving	1	2	3	4
Loss of available hunting grounds	1	2	3	4
Lack of accommodations	1	2	3	4
Not seeing enough deer	1	2	3	4
Not seeing enough trophy bucks	1	2	3	4
Not getting many shots at deer	1	2	3	4
Changed my place of residence	1	2	3	4
New area was recommended by other hunters	1	2	3	4
Too much competition and interference from other hunters	1	2	3	4
Other	1	2	3	4

5. On opening day in 1984, how satisfied were you with your deer hunt?

(CHOOSE ONE)

- ☐ Poor
☐ Fair, the day didn't work out very well
☐ Good, but a number of things could have been better
☐ Very good, but some things could have been better
☐ Excellent, only minor problems
☐ Perfect
☐ I did not hunt opening day -- GO TO QUESTION 10 PLEASE.

6. How crowded did you feel in the field on opening day?

(CIRCLE ONE NUMBER)

- | | | | | | | | | |
|------------|----------|---|------------|---|---|---|-----------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Not at all | | | | | | | | |
| Crowded | Slightly | | Moderately | | | | Extremely | |
| | Crowded | | Crowded | | | | Crowded | |

7. How many legal deer did you see within shooting range on opening day in 1984?

(CHOOSE ONE)

- ☐ None
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5
☐ 6 or more

8. How many deer did you get shots at on opening day?

(CHOOSE ONE)

- ☐ None
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5
☐ 6 or more

9. How would you rate the quality of your deer hunt on opening day?

(CIRCLE ONE NUMBER)

- | | | | | |
|------|--------|---------|--------|------|
| 1 | 2 | 3 | 4 | 5 |
| Very | Fairly | About | Fairly | Very |
| Low | Low | Average | High | High |

10. Now think about last year's entire season, and all the gun deer hunting you did. Overall, how would you rate the quality of your 1984 deer hunting?

(CIRCLE ONE NUMBER)

- | | | | | |
|------|--------|---------|--------|------|
| 1 | 2 | 3 | 4 | 5 |
| Very | Fairly | About | Fairly | Very |
| Low | Low | Average | High | High |

11. If you could choose, under ideal conditions, how many other people besides your own party would you like to see in the field while you are hunting?

(CHOOSE ONE)

- ☐ I would not like to see any other people besides my own party in the field.
☐ I would like to see 1-3 other people hunting.
☐ I would like to see 4-6 other people hunting.
☐ I would like to see 7-10 other people hunting.
☐ I would like to see 11-15 other people hunting.
☐ I would like to see 16-20 other people hunting.
☐ I would like to see more than 20 other people hunting.

12. Was your 1984 deer hunt typical of past hunts?

- ☐ Yes
☐ No -- IF NO: What was different about last year's hunt?

(CHECK ALL THAT APPLY)

- ☐ Poor snow conditions for tracking
☐ Too much rain
☐ Warm temperatures
☐ Fewer deer seen
☐ Fewer deer bagged
☐ Greater hunter pressure
☐ Fewer shots at legal deer
☐ Good snow conditions for tracking
☐ Cold temperatures
☐ More deer seen
☐ More deer bagged
☐ Less hunter pressure
☐ More shots at legal deer
☐ Other

13. If you could change your last year's deer hunt, what would you like to change?

(CHECK ALL THAT APPLY)

- ☐ Less rain
☐ Increase the number of hunters seen
☐ Increase the number of deer seen
☐ Increase the number of shots you took at deer
☐ More snow cover for tracking
☐ Decrease the number of hunters seen
☐ Increase the number of trophy bucks seen
☐ Other

14. Now here are some conditions which may contribute to your having a high quality deer hunting experience. How much does each of the following make for high quality deer hunting as you see it?

(CIRCLE ONE RESPONSE FOR EACH CONDITION)

- ND = Makes No Difference for a High Quality Hunt
 Helps = Helps in Order to Have a High Quality Hunt
 Impt = Important for a High Quality Hunt
 Nec = Necessary for a High Quality Hunt

For a High Quality Hunt

Wildlife Conditions

(CIRCLE ONE)

- | | | | | |
|-------------------------------|----|-------|------|-----|
| Tagging a deer | ND | Helps | Impt | Nec |
| Tagging a trophy buck | ND | Helps | Impt | Nec |
| Getting a shot at a deer | ND | Helps | Impt | Nec |
| Making an excellent shot | ND | Helps | Impt | Nec |
| Seeing other wildlife | ND | Helps | Impt | Nec |
| Not losing a wounded deer | ND | Helps | Impt | Nec |
| Outsmarting the deer | ND | Helps | Impt | Nec |
| Giving the deer a fair chance | ND | Helps | Impt | Nec |

Nature Conditions

- | | | | | |
|---|----|-------|------|-----|
| Tracking snow | ND | Helps | Impt | Nec |
| Getting away from home and walking the woods and fields | ND | Helps | Impt | Nec |
| Observing beauty in nature | ND | Helps | Impt | Nec |
| Crisp sunny autumn weather | ND | Helps | Impt | Nec |
| Moderate temperature | ND | Helps | Impt | Nec |
| Knowing the area well | ND | Helps | Impt | Nec |
| Deer sign around: tracks, rubs, droppings | ND | Helps | Impt | Nec |

Human Conditions

- | | | | | |
|--|----|-------|------|-----|
| Getting together with friends and family | ND | Helps | Impt | Nec |
| Getting fresh air and physical exercise | ND | Helps | Impt | Nec |
| Introducing someone to deer hunting | ND | Helps | Impt | Nec |
| Knowing and trusting hunting partners | ND | Helps | Impt | Nec |
| Hunting with a particular group | ND | Helps | Impt | Nec |
| Doing better than partners | ND | Helps | Impt | Nec |
| Seeing no other hunters | ND | Helps | Impt | Nec |

Having no worries about hunting law violations	ND	Helps	Impt	Nec
Having permission to hunt on private land	ND	Helps	Impt	Nec
Safe practices by other hunters	ND	Helps	Impt	Nec
Knowing local people	ND	Helps	Impt	Nec
Following certain deer hunting traditions	ND	Helps	Impt	Nec
<u>Equipment Conditions</u>				
Having correct equipment	ND	Helps	Impt	Nec
Equipment works well	ND	Helps	Impt	Nec
Staying dry and comfortable	ND	Helps	Impt	Nec
Having good health and physical stamina	ND	Helps	Impt	Nec

15. On the other hand, certain conditions may contribute to your having a low quality hunting experience. How much do each of the following make for a low quality hunting experience as you see it?

ND = Makes No Difference for a Low Quality Hunt
 May = May Make for a Low Quality Hunt
 Tends = Tends to Make for a Low Quality Hunt
 Def = Definitely Makes for a Low Quality Hunt

For a Low Quality Hunt

<u>Wildlife Conditions</u>	(CIRCLE ONE)			
Tagging no deer	ND	May	Tends	Def
Getting no shots	ND	May	Tends	Def
Missing most or all shots	ND	May	Tends	Def
Seeing no deer	ND	May	Tends	Def
Seeing no other wildlife	ND	May	Tends	Def
Losing a wounded deer	ND	May	Tends	Def
No knowing where to look for deer	ND	May	Tends	Def
Not making a clean kill on a deer you finally tag	ND	May	Tends	Nec

Nature Conditions

Sights and sounds of civilization	ND	May	Tends	Def
Unattractive hunting area	ND	May	Tends	Def
Cold, wet, windy weather	ND	May	Tends	Def
Too cold or too hot	ND	May	Tends	Def
Poor deer habitat	ND	May	Tends	Def
Hard to get around	ND	May	Tends	Def
Being a stranger to the hunting area	ND	May	Tends	Def

Human Conditions

Bad manners of hunters in your hunting party	ND	May	Tends	Def
Hunting with strangers in your party	ND	May	Tends	Def
Bad manners of hunters not in your hunting party	ND	May	Tends	Def
Seeing other hunters	ND	May	Tends	Def
Other hunting parties come too close	ND	May	Tends	Def
Being ticketed for a violation	ND	May	Tends	Def
Being kicked off private land	ND	May	Tends	Def
Unfriendly people who are not hunters	ND	May	Tends	Def
Gunshot accident in your party	ND	May	Tends	Def

Equipment Conditions

Losing or forgetting to take along a key piece of equipment	ND	May	Tends	Def
Equipment failure	ND	May	Tends	Def
Poor health or sickness interferes with or ends the hunt	ND	May	Tends	Def

Section III: Attitudes and Beliefs About Deer Hunting in Northwest Wisconsin

These questions ask if you have ever hunted in the northwest (THE AREA SURROUNDED IN BOLD INK ON THE MAP), and if you have, under what conditions would you return to the northwest to hunt deer. EVEN IF YOU HAVE NEVER HUNTED IN NORTHWEST WISCONSIN, YOUR ANSWERS ARE IMPORTANT.

1. Have you ever hunted deer with a gun in northwest Wisconsin?

_____ No -- GO TO QUESTION 3 PLEASE

_____ Yes -- IF YES: When was the last season?

_____ 19_____

Did you hunt there on opening day that season?

_____ Yes

_____ No -- IF NO: Where did you hunt on opening day that season? (Find the management unit on map on front page) _____

2. Why did you first decide to hunt in the northwest?

(CHECK ALL THAT APPLY)

- _____ Invited by a friend to hunt with him in the northwest
- _____ Just to hunt in a new area
- _____ Changed my place of residence
- _____ Wanted to experience a northwest hunt
- _____ Had a poor success rate in regular hunting location
- _____ Thought my chances of seeing more deer would be greater in the northwest
- _____ Thought my chances of bagging a deer would be greater in the northwest
- _____ Wanted to see fewer hunters in the field while hunting
- _____ Hunting partners wanted to change
- _____ New area was recommended by other hunters
- _____ Not seeing enough deer where I usually hunt
- _____ Wanted snow cover for tracking
- _____ Thought my chances of seeing a trophy deer would be greater in the northwest
- _____ Too much interference and competition from other hunters in regular hunting area
- _____ I don't know
- _____ Other _____

3. Consider all the aspects of a northwest deer hunt experience. Why didn't you hunt in the northwest last year?

(CHECK ALL THAT APPLY)

- _____ Too far a trip
- _____ Too cold
- _____ Lack of accommodations
- _____ Snow cover is no better than where I usually hunt
- _____ Not enough available public hunting ground
- _____ Don't like the habitat
- _____ Would not see more deer than where I usually hunt
- _____ Don't know the area well
- _____ Hunting partners did not want to hunt in the northwest
- _____ Did not want to hunt alone
- _____ Have traditionally hunted other areas
- _____ Have no private land to hunt on
- _____ Not enough hunters to keep the deer moving
- _____ Too many hunters in the field
- _____ Too much competition and interference from other hunters
- _____ Other _____

This section is about your attitudes and perceptions of a northwest deer hunt. We are interested in your opinions of the deer herd, hunter density, hunting quality, and whether or not you would consider hunting deer in the northwest. EVEN IF YOU HAVE NEVER HUNTED IN NORTHWEST WISCONSIN, YOUR OPINIONS ARE STILL VERY IMPORTANT, SO PLEASE ANSWER THESE QUESTIONS.

1. How many legal bucks do you think you would see during a typical nine day hunting season in the northwest?

(CHOOSE ONE)

- | | | |
|------------|-------------|------------------------|
| _____ none | _____ three | _____ six to ten |
| _____ one | _____ four | _____ eleven to twenty |
| _____ two | _____ five | _____ more than twenty |

2. How many legal bucks do you think you would see on opening day in the northwest?

(CHOOSE ONE)

- | | | |
|------------|-------------|------------------------|
| _____ none | _____ three | _____ six to ten |
| _____ one | _____ four | _____ eleven to twenty |
| _____ two | _____ five | _____ more than twenty |

3. What do you consider a trophy buck?

(CHOOSE ONE)

- _____ spike buck _____ 9-10 points
 _____ 3-4 points _____ 11-12 points
 _____ 5-6 points _____ 13 or more points
 _____ 7-8 points

4. During the gun deer season, do you think the hunter density (number of hunters/sq. mile) in the northwest is

(CHOOSE ONE)

- _____ Very low _____ Fairly high
 _____ Fairly low _____ Very high
 _____ About average for the whole state _____ I am unsure

5. Do you think the hunter density (number of hunter/sq. mile) in the northwest should be

(CHOOSE ONE)

- _____ Increased
 _____ Decreased
 _____ Kept at its current level
 _____ I am unsure

6. Suppose that during one day of deer hunting in the northwest you saw _____ hunters in the field. How would you feel about seeing this number of hunters? (CIRCLE ONE NUMBER)

1	2	3	4	5
Very Unpleasant	Unpleasant	Neutral	Pleasant	Very Pleasant

7. How many hunters, other than those in your own party, would you expect to see in the field on opening day in the northwest?

(CHOOSE ONE)

- _____ None
 _____ One to two
 _____ Three to five
 _____ Six to ten
 _____ Eleven to fifteen
 _____ Sixteen to twenty
 _____ Twenty-one to thirty
 _____ More than thirty

8. How many hunters, other than those in your own party, would you prefer to see in the field when hunting in the northwest?

(CHOOSE ONE)

- _____ None
 _____ One to two
 _____ Three to five
 _____ Six to ten
 _____ Eleven to fifteen
 _____ Sixteen to twenty
 _____ Twenty-one to thirty
 _____ More than thirty

9. Would you be willing to travel farther than you do now to see more deer while hunting, if it also meant seeing more hunters in the field?

(CHOOSE ONE)

- _____ Definitely would _____ Probably would not
 _____ Probably would _____ Definitely would not
 _____ I am unsure

10. How interested do you think your hunting partners would be in hunting in the northwest?

- _____ Not at all interested
 _____ Slightly interested
 _____ Very interested

11. If your hunting partners did not want to hunt in the northwest, would you go to the northwest without them?

(CHOOSE ONE)

- _____ I do not hunt with partners
 _____ Yes, I would go to the northwest without them.
 _____ No, I would not go to the northwest without them.
 _____ I am unsure.

12. Overall, would you prefer a northwest deer hunt to where you usually hunt?

(CHOOSE ONE)

- _____ Definitely would
 _____ Probably would
 _____ I am unsure
 _____ Probably would not
 _____ Definitely would not

13. People have many ideas about how hunting deer in the northwest could be different from where they presently hunt. Please indicate whether you agree or disagree with the following statements about deer hunting in the northwest in comparison to where you presently hunt.

DD = Definitely Disagree
 PD = Probably Disagree
 PA = Probably Agree
 DA = Definitely Agree

(CIRCLE ONE RESPONSE IN EACH ROW)

The deer population is much larger in the northwest.	DD	PD	PA	DA
Chances of bagging deer are greater in the northwest.	DD	PD	PA	DA
Chances of bagging a trophy buck are greater in the northwest.	DD	PD	PA	DA
Chances of seeing any legal deer are greater in the northwest.	DD	PD	PA	DA
More likely to see a trophy buck in the northwest.	DD	PD	PA	DA
Will take more shots at legal deer in the northwest.	DD	PD	PA	DA
Will see more wildlife in the northwest.	DD	PD	PA	DA
There is more available unposted hunting land in the northwest.	DD	PD	PA	DA
The quality of a northwest deer hunt would be better.	DD	PD	PA	DA

14. People also have many ideas about the deer population in the northwest. Please indicate whether you agree or disagree with the following statements about the northwest deer population.

DD = Definitely Disagree
 PD = Probably Disagree
 PA = Probably Agree
 DA = Definitely Agree

(CIRCLE ONE RESPONSE IN EACH ROW)

The current buck harvest rate should be increased.	DD	PD	PA	DA
Many deer are being lost to severe weather conditions.	DD	PD	PA	DA
Many deer are being lost to predators (wolves, coyotes, or dogs).	DD	PD	PA	DA
Poachers are taking many deer in the northwest.	DD	PD	PA	DA

The next few questions are about your opinions on possible changes in the present northwest gun deer season. These changes are only suggestions -- THEY ARE NOT NEW REGULATIONS.

15. Suppose the gun deer season in the northwest opened one week earlier than its present dates. If this change was put into effect this year, for example, the northwest season would open on November 16, approximately two weeks before Thanksgiving. Do you think:

DW = Definitely Would
PW = Probably Would
DK = Don't Know
PWN = Probably Would Not
DWN = Definitely Would Not

(CIRCLE ONE RESPONSE IN EACH ROW)

- You would go to the northwest to hunt deer. DW PW DK PWN DWN
- You would hunt deer in the northwest on first day of the early season (Nov. 16) DW PW DK PWN DWN
- You would see more deer than you now see at your present hunting location. DW PW DK PWN DWN
- You would see more trophy bucks than you now see at your present hunting location. DW PW DK PWN DWN

16. If the gun deer season in the northwest was lengthened from nine days to sixteen days by starting seven days earlier, how many days to you think you would hunt deer in the northwest?

(CHOOSE ONE)

- None One to two Three to five Six to eight Nine to eleven Twelve to sixteen Until I bagged a deer

Very often weather conditions affect the quality and satisfaction of your deer hunts. The remaining questions in this section concern your weather preferences for gun deer hunting in the northwest.

1. Do weather conditions at the time of the hunt play an important role in your decision of where you go deer hunting?

Yes
No

2. What kind of weather do you prefer while you are deer hunting?

(CHOOSE ALL THAT APPLY)

- Mild temperature Clear, sunny skies Grey, overcast skies A steady breeze No snow cover Light snow cover Heavy snow cover Light snow falling Cold temperatures Mixed sun and clouds No breeze, or very little Rain Other

3. If the gun deer season in the northwest were one week earlier than its present dates, do you think the weather conditions would be?

(CHOOSE ONE)

- more favorable for deer hunting
less favorable for deer hunting
no different from usual weather conditions
I am unsure

Section IV: Sandhill Wildlife Area

The next few questions are about the Sandhill Wildlife Area, located in central Wisconsin near Babcock. It is managed by the Department of Natural Resources as a demonstration and experimental area, emphasizing habitat management and quality hunting techniques. Even if you have never heard of Sandhill until now, please answer these next questions.

Sandhill is completely enclosed by a nine-foot high deer-proof fence. During the deer hunts, there are four access roads leading in, and one common exit road where all hunters are checked out. The habitat at Sandhill is a mixture of wetlands, small lakes, and aspen/oak forests.

In the past, Sandhill deer hunts have allowed the use of unconventional firearms, such as handguns and muzzleloaders. Recently, Sandhill has been managed for trophy bucks, and quality hunts have been conducted by manipulating hunter density.

1. Before reading the Introduction, had you ever heard of the Sandhill Wildlife Area?

No, I had never heard of it.
I had heard of it, but was unsure where it is.
I had heard of it and know where it is.
I have visited Sandhill.

2. If you have visited Sandhill, what have you done there?

(CHECK ALL THAT APPLY)

I have never visited Sandhill.
Drove through in a car or truck.
Hiking
Biking
Canoeing
Picnicking
Wildlife observation
Wildlife photography
Hunted once or twice
Hunted frequently
Other (please describe)

3. Why didn't you apply to hunt trophy bucks at Sandhill during any of the 1981, 1982, 1983 and 1984 seasons?

(CHECK ALL THAT APPLY)

Does not apply -- I did apply for a Sandhill permit.
Does not apply -- I might have applied for a Sandhill permit, but I don't recall for sure.
I had never heard of Sandhill.
I had heard of Sandhill, but didn't know about the deer hunts.
I did not know how to apply for a permit.
I could not get an application.
I hunted deer at Fort McCoy that weekend.
I thought the hunts were only for muzzleloaders and handguns.
I had other places to hunt that I thought were just as good.
I couldn't get away the weekend of the hunt.
I didn't want to hinder my regular deer hunting season.
My hunting partners were unavailable.
My hunting partners didn't want to apply.
I did not want to hunt alone.
Sandhill is too far from home.
I didn't think I would have a chance to get a permit even if I did apply.
Sandhill is too controlled (fences, access roads, regulations, etc.)
I never got around to completing the application.
I never returned my completed application.
Regular deer hunting took all of my available time.
The expenses of an extra deer hunting trip were too great.
I was unfamiliar with the area.
I had no time to scout the area.
I didn't like the terrain or habitat at Sandhill.
Other (please describe)

Section V

In this final section, we would like to ask some questions about your background which will help us compare your answers to those of other people. All of your answers are strictly confidential.

1. How old are you?

I am _____ years old.

2. Are you _____ male _____ female

3. How many years of school have you completed?

(CIRCLE OR CHECK THE HIGHEST LEVEL COMPLETED)

1 2 3 4 5 6 7 8 9 10 11 12

Some College
B.A. or equivalent
M.S. or equivalent
Advanced degree (M.D., Ph.D., etc.)

4. What is your primary occupation?

If you are retired, give your former occupation.

(CHECK THE ONE THAT COMES CLOSEST)

- ☐ Professional/Technical
- ☐ Manager/Administrator
- ☐ Clerical/Sales
- ☐ Craftsman
- ☐ Skilled, Industrial worker
- ☐ Service worker
- ☐ Farm worker
- ☐ Laborer
- ☐ Student
- ☐ Unemployed

5. With reference to your primary occupation, are you currently:

(CHOOSE ONE)

- ☐ Fully retired
- ☐ Semi-retired, working part-time
- ☐ Retired, working at a different job part-time
- ☐ Unemployed, laid-off
- ☐ Working part-time
- ☐ Working full-time

6. Please check the space that comes closest to your total household income before taxes:

(CHOOSE ONE)

- | | |
|--|--|
| <input type="checkbox"/> \$0-\$3,999 | <input type="checkbox"/> \$30,000 - \$34,999 |
| <input type="checkbox"/> \$4,000 - \$7,999 | <input type="checkbox"/> \$35,000 - \$39,999 |
| <input type="checkbox"/> \$8,000 - \$11,999 | <input type="checkbox"/> \$40,000 - \$44,999 |
| <input type="checkbox"/> \$12,000 - \$15,999 | <input type="checkbox"/> \$45,000 - \$49,999 |
| <input type="checkbox"/> \$16,000 - \$19,999 | <input type="checkbox"/> \$50,000 - \$54,999 |
| <input type="checkbox"/> \$20,000 - \$24,999 | <input type="checkbox"/> \$55,000 - \$59,999 |
| <input type="checkbox"/> \$25,000 - \$29,999 | <input type="checkbox"/> \$60,000 or more |

7. What is your marital status?

(CHECK ONE)

- ☐ Now married
- ☐ Widowed
- ☐ Divorced
- ☐ Separated
- ☐ Never married

8. How many children do you have?

I have _____ children.

9. Where do you presently live?

(CHECK ONE)

- ☐ Farm or rural area
- ☐ Small town or village of under 5,000 population
- ☐ Small city of 5,000 to 49,999 population but not a suburb of a larger city)
- ☐ Suburb within 15 miles of a large or very large city
- ☐ Large city of 50,000 to 500,000 population
- ☐ Very large city of over 500,000 population

10. What county do you live in?

_____ County

11. Where did you live (mostly) when you were growing up?

(CHECK ONE)

- ☐ Farm or rural area
- ☐ Small town or village of under 5,000 population
- ☐ Small city of 5,000 to 49,999 population (but not a suburb of a larger city)
- ☐ Suburb within 15 miles of a large or very large city
- ☐ Large city of 50,000 to 500,000 population
- ☐ Very large city of over 500,000 population

01460

APPENDIX B. Early northwest deer season proposals and ballot.

Now that you have had a chance to study the proposals, please mark the box that represents your choice for deer hunting in the northwestern part of Wisconsin.

- ☐ A A 16-day season starting the Saturday before the current season, and running consecutive days through the current season.
- ☐ B A 3-day early season running Saturday, Sunday and Monday the week prior to the current season, plus the current season (3 + 9).
- ☐ C Open November 15 every year and run to the end of the current season.
- ☐ D Open the Saturday nearest November 16 and run to the end of the conventional season.
- ☐ E Continue the current 9-day Thanksgiving week gun deer season with no changes.

VOTER INFORMATION

1. Do you presently
 - ☐ live in the early season study area?
 - ☐ hunt in the early season study area?
 - ☐ both.
 - ☐ neither.
2. Do you hunt deer with
 - ☐ gun?
 - ☐ bow?
 - ☐ both.
 - ☐ neither.
3. Are you a member of
 - ☐ Wisconsin Wildlife Federation?
 - ☐ Wisconsin Bowhunters Association?
 - ☐ Wisconsin Conservation Congress?

Comments: _____

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